UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,093	02/21/2002	Gerald Lebizay	PW 249755 13076	8617

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EXAMINER
HAN, CLEMENCE S

ART UNIT	PAPER NUMBER
2668	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/080,093	LEBIZAY ET AL.
	Examiner	Art Unit	
	Clemence Han	2668	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *21 February 2002*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-29* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *22-29* is/are allowed.

6) ☒ Claim(s) *1-4 and 11-21* is/are rejected.

7) ☒ Claim(s) *5-10* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *21 February 2002* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to under 37 CFR 1.83(a) because they fail to

show SNSUT 720 as described in the specification. The specification describes

720 for storing arriving unmanaged packet without the ESN (page 11 line 21 –

page 12 line 2). However, 720 in Figure 7 shows "with ESN". Any structural

detail that is essential for a proper understanding of the disclosed invention should

be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to

avoid abandonment of the application. Any amended replacement drawing sheet

should include all of the figures appearing on the immediate prior version of the

sheet, even if only one figure is being amended. The figure or figure number of an

amended drawing should not be labeled as "amended." If a drawing figure is to be

canceled, the appropriate figure must be removed from the replacement sheet, and

where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the

filing date of an application must be labeled in the top margin as either

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes

are not accepted by the examiner, the applicant will be notified and informed of

any required corrective action in the next Office action. The objection to the

drawings will not be held in abeyance.

Specification

2.   The disclosure is objected to because of the following informalities: "X" is

defined first as the maximum number of packets that may be buffered in the

SNSUT 720 (page 11 line 20-21). In the next page (page 12 line 20-23 and 850 in

Figure 8), the case where there are more than X packets in the SNSUT is

discussed. It is not clear whether the X in the page 11 and the X in the page 12 are

the same X or not.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

4.   Claim 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

5.   Claim 11 recites the limitation "the placed unmanaged packet having the

ESN in the SNSUT" in line 15. There is insufficient antecedent basis for this

limitation in the claim. It is also noticed the there is a comma after "arriving

managed packet" in claim 11 line 14 which was not present in the similar

limitation of claim 1 line 12.

6.   Claim 15 recites the limitation "the switch input scheduler process" in line 1.

There is insufficient antecedent basis for this limitation in the claim.

7.   Claim 18 recites the limitation "the SNSSCP" in line 2. There is insufficient

antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102

that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9.   Claim 1-4 and 11-14 are rejected under 35 U.S.C. 102(e) as being

anticipated by Kawarai et al. (US Pub. 2002/0122424).

    Regarding to claim 1, Kawarai teaches a method of inverse multiplexing

unmanaged traffic flows over a multi-star switch network, comprising: classifying

incoming traffic to a flow (12 in Figure 8); assigning a packet sequence number to

a packet from a unmanaged traffic flow going to a destination node (13 in Figure

8), placing the packet into an unmanaged traffic queue (140b in Figure 20), and

maintaining an expected sequence number (ESN) [0043]; processing and

transmitting all managed packets destined for a switch, then processing and

transmitting an unmanaged packet from the unmanaged traffic queue [0110];

placing an arriving unmanaged packet without the ESN from a switch fabric output

into a destination source-node-specific-unmanaged-traffic buffer (SNSUT) to form

a placed unmanaged packet without the ESN [0124]; and moving an arriving

unmanaged packet having the ESN, an arriving managed packet received from the

switch fabric output, or a placed unmanaged packet having the ESN in the SNSUT,

to an intended output queue [0126].

Regarding to claim 2, Kawarai teaches the flow defines a source node, a

destination node, a switch, and whether the flow is managed or unmanaged [0052].

Regarding to claim 3, Kawarai teaches a source node classifier, using a

traffic engineering algorithm, classifies the incoming traffic to the flow (12 in

Figure 8), assigns the packet sequence number to the packet from the unmanaged

traffic flow going to the destination node (13 in Figure 8), and places the packet

into the unmanaged traffic queue (140b in Figure 20).

Regarding to claim 4, Kawarai teaches the processing and transmitting of packets destined for the switch carried out by a switch input scheduler process (Figure 20).

Regarding to claim 11, Kawarai teaches program code storage device, comprising: a machine-readable storage medium; and machine-readable program code, stored on the machine-readable storage medium, having instruction to classify incoming traffic to a flow (12 in Figure 8), assign a packet sequence number to a packet from an unmanaged traffic flow going to a destination node (13 in Figure 8), place the packet into an unmanaged traffic queue (140b in Figure 20), and maintain an expected sequence number (ESN) [0043], process and transmit all managed packets destined for a switch first, then process and transmit an unmanaged packet from the unmanaged traffic queue [0110], place an arriving unmanaged packet without the ESN from a switch fabric output into a destination source-node-specific-unmanaged-traffic buffer (SNSUT), to form a placed unmanaged packet without the ESN [0124]; and move an arriving unmanaged packet having the ESN or an arriving managed packet, received from the switch fabric output, or the placed unmanaged packet having the ESN in the SNSUT, to an intended output queue [0126].

Regarding to claim 12, Kawarai teaches the flow defines a source node, a destination node, a switch, and whether the flow is managed or unmanaged [0052].

Regarding to claim 13, Kawarai teaches a source node classifier, using a traffic engineering algorithm, classifies incoming traffic to the flow (12 in Figure 8), assigns the packet sequence number to the packet from the unmanaged traffic flow going to the destination node (13 in Figure 8), and places the packet into the unmanaged traffic queue (140b in Figure 20).

Regarding to claim 14, Kawarai teaches wherein the processing and transmitting of packets destined for the switch is carried out by a switch input scheduler process (Figure 20).

Allowable Subject Matter

10. Claim 5-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claim 15-21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

12. Claim 22-29 are allowed.

13.   The following is a statement of reasons for the indication of allowable

subject matter: The prior arts in the record fail to teach or make obvious to a

multi-star network comprising a multi-star switch fabric; and an input device,

connected to the multi-star switch fabric, having a plurality of Switch-Specific

Managed-Traffic Queues (SSMT), an unmanaged traffic queue, and a switch input

scheduler with a structure of the claim.

Conclusion

14.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. The following patents are cited to further show the state of

the art with respect to the invention in general.

U.S. Patent 5,555,265 to Kakuma et al.

U.S. Patent 6,445,706 to Fransson et al.

U.S. Patent 6,741,552 to McCrosky et al.

U.S. Patent 6,754,210 to Ofek

U.S. Patent 6,778,548 to Burton et al.

U.S. Patent 6,889,010 to Trezza

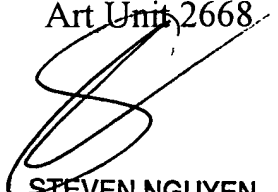U.S. Patent 6,967,926 to Williams et al.

U.S. Pub. 2002/0089931 to Takada et al.

U.S. Pub. 2003/0174700 to Ofek et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Clemence Han
Examiner
Art Unit 2668

STEVEN NGUYEN
PRIMARY EXAMINER